



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
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WMD/SMTB/WSMTS

FILE: MS

JUN 27 2003

Mr. Charles Chisolm
Executive Director
Mississippi Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Dear Mr. Chisolm:

The U. S. Environmental Protection Agency (EPA) Region 4 has received and considered the adopted revisions to Mississippi's Water Quality Standards regulations, transmitted to our office by your letter dated January 15, 2003. The revisions contained in the *Mississippi Water Quality Criteria for Intrastate, Interstate and Coastal Waters* were adopted by the Mississippi Commission on Environmental Quality on October 24, 2002, and were certified as duly adopted pursuant to State law in a letter dated January 16, 2003, from the State Attorney General.

The State's triennial review of water quality standards resulted in several changes to designated uses of State waters, water quality criteria, and implementation policies in the standards regulation, as well as the adoption of new provisions, which will improve the State's ability to implement its standards. New and revised standards were considered relative to the requirements of Section 303 of the Clean Water Act (CWA) and 40 CFR Part 131.

Pursuant to the Endangered Species Act, EPA prepared a biological evaluation (BE) of the effect of the revisions on federally listed species found in Mississippi's waters and submitted the results of the review to the U.S. Fish and Wildlife Service (FWS) Jackson, Mississippi Office. Based on EPA's analysis of available data, EPA tentatively determined that the new and revised provisions of Mississippi standards were "not likely to adversely affect" federally endangered or threatened species in State waters or their critical habitat. EPA concluded that any effect resulting from the implementation of the new and revised standards would be beneficial or insignificant. On April 11, 2003, in a letter from Ray Aycock, Field Supervisor, to Duncan M. Powell, the Region's Endangered Species Act Coordinator, the FWS concurred with EPA's evaluation and conclusion that the standards are "not likely to adversely affect" listed species or their critical habitat. A copy of the April 11, 2003 letter is enclosed.

With the exception of three provisions still under review and listed below, EPA has determined that the revisions to *Mississippi Water Quality Criteria for Intrastate, Interstate and Coastal Waters* adopted by the State on October 24, 2002, comply with the requirements of Section 303 of the CWA and 40 CFR Part 131. EPA is continuing its review of the information provided for the rejustification of the variances for the Escatawpa River and Tallahala Creek and the exemption to the turbidity standard for environmental restoration projects. EPA cannot

complete its review of these provisions until additional information is provided by the State. Therefore, action on these provisions will be completed at a later date. A description of the additional information required by EPA to complete its review of these provisions is included as an attachment to this letter. The State should provide the information to our office as soon as possible. The remainder of the revisions are approved for CWA purposes, pursuant to the Agency's authority under Section 303(c) of the CWA and its implementing regulations at 40 CFR Part 131.

Based on conversations with your staff, we understand the State is planning to implement Section I.3.A and I.4 of the standards consistent with the process for developing site-specific criteria based on natural conditions, as outlined in a memorandum from Tudor T. Davies, Director of EPA's Office of Science and Technology, to the Water Management Division Directors in Region 1 -10, dated November 5, 1997. In that memorandum, EPA identified certain components for development of site-specific criteria based on natural conditions, which include: 1) a regulatory provision that authorizes the development of site-specific criteria based on natural background levels, 2) a regulatory definition of "natural background," and 3) a procedure for determining natural background concentration for constituents subject to the site-specific criteria authorities, to be included or referenced in the State's standards. The existing Section I.3 and the addition of Section I.4 establish the regulatory authority for natural condition-based criteria and the definition of "natural background."

It is our understanding that the procedure for determining natural background is under development by your staff. If the State determines to revise its standards by including such a procedure, that revision would be subject to review and approval by EPA. The procedure, when finalized, should include information concerning the technical/scientific requirements for development of such criteria, the process for establishing these site-specific criteria, and the State's method for inclusion of the site-specific criteria in Section IV of the State standards or as an appendix to the standards. If, however, the State chooses to adopt site-specific criteria on a case-by-case basis, any such criteria based upon existing Section I.3 and newly adopted Section I.4 will be reviewed by EPA as site-specific revisions to State standards.

Title 40 CFR §131.12(a) requires each state to identify the methods for implementing its antidegradation policy. We understand the State is currently revising its draft antidegradation implementation procedures based on EPA's comments on those draft procedures. We are requesting that within 90 days the State should provide the final procedures to EPA for review and concurrence.

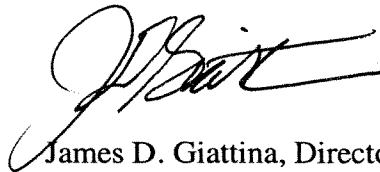
EPA's previous CWA Section 304(a) criteria (1999) for protection of human health were based on an assumption that 100% of the arsenic present in the fish tissue was in the toxic inorganic form. Publications since the development of the criteria suggest that inorganic arsenic may be in the range of 0 - 29% in the portion of consumed fish tissue. EPA's Health and Environmental Criteria Division (HECD), which is reviewing the new data, has indicated that the use of an assumption in the range of 4-20% inorganic arsenic is appropriate at this time for the

purposes of establishing human health-based criteria.

During the review of the CWA 304(a) arsenic criteria recommendations, EPA intends to examine more closely the percent of inorganic arsenic that is likely to be present in fish tissue, as well as the more recent science on arsenic carcinogenicity used in the January 2001 rule revising the maximum contaminant level (MCL) developed under the Safe Drinking Water Act (SDWA). See 66 FR 6976 January 22, 2001. After completion of the review and publication of a recommended criterion, EPA expects the State to revise its criterion to be consistent with the recommended criterion or provide evidence showing that the State's criterion is protective of human health. However, until EPA's review is completed, we approve the State's revision of the arsenic criterion for the consumption of organisms only. The derived criteria are consistent with 40 CFR §131.11(b) and within an acceptable range of uncertainty given the current science.

We would like to commend you and your staff for the large number of issues addressed and revisions adopted during this triennial review. These newly-adopted revisions represent your continuing effort to protect the waters of Mississippi. If you have questions regarding EPA's approval, please contact me at (404) 562-9470 or have a member of your staff contact Eve Zimmerman at (404) 562-9259.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Giattina', with a stylized flourish extending from the end.

James D. Giattina, Director
Water Management Division

Enclosures

cc: Barry Royals, MDEQ
Randy Reed, MDEQ

Additional Information Required by EPA Region 4 to Complete its Review of Certain Provisions Adopted by the State of Mississippi on October 24, 2002

1. Exemption to the turbidity standard for environmental restoration projects

The State should provide implementation procedures for this provision which address the State's criteria for allowing exemptions for individual projects.

2. Variance for the Escatawpa River

As stated in the letter from Gail Mitchell to Barry Royals dated May 2, 2002, the State's rejustification for the variance for the Escatawpa River should address the nine conditions given on Page 5-12 of EPA's 1994 *Water Quality Standards Handbook, Second Edition* (Handbook). The information provided did not adequately address all of the nine conditions. Before we make a decision on the variance, the State should provide documentation that:

- the underlying standard is unattainable based on one or more the grounds outlined in 40 CFR §131.10(g) for removing a designated use;
- treatment more advanced than required by Section 303(c)(2)(A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated;
- the more stringent State criterion is maintained and is binding upon all other dischargers on the stream or stream segment;
- the variance is granted a specific period of time and must be rejustified upon expiration but at least every three years;
- the discharger either must meet the standard upon the expiration of this time period or must make a new demonstration of "unattainability"; and
- reasonable progress is being made toward meeting the standards.

3. Variance for Tallahala Creek

As stated in the letter from Gail Mitchell to Barry Royals dated May 2, 2002, the State's rejustification for the variance for Tallahala Creek should address the nine conditions given on Page 5-12 of the Handbook. The State has provided sufficient information to address these nine conditions with the exception of the items listed below. Before a decision on the variance can be made, the State should provide documentation that:

- the underlying standard is unattainable based on one or more the grounds outlined in 40 CFR §131.10(g) for removing a designated use; and
- treatment more advanced than required by Section 303(c)(2)(A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated.